The $n^{th}$ partial sum of the series is given. Find the indicated term of the series.

1) $S_n = \left(\frac{n+5}{n-3}\right)$; 10$^{th}$ term

2) $S_n = \left(\frac{n^2-1}{2n+1}\right)$; 12$^{th}$ term

3) $S_n = n^3$; 33$^{rd}$ term

4) $S_n = (n^3 - 9)n^2$; 25$^{th}$ term

5) $S_n = (400 - n)n$; 48$^{th}$ term

6) $S_n = (5n^2 - 2)$; 11$^{th}$ term

7) $S_n = \left(\frac{n-1}{4n}\right)$; 36$^{th}$ term

8) $S_n = (n^3 + 1)$; 15$^{th}$ term
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Answer key

Finding $n^{th}$ term

- $\frac{4}{21}$
- $\frac{289}{575}$
- $3169$
- $1802560$
- $305$
- $105$
- $\frac{1}{5040}$
- $631$